## REMARKS

The allowance of claims 9-14, and the indicated allowability over the art of claims 4 and 6-8 is noted, with thanks.

Claims 1 and 5 have been amended to more clearly define the present invention.

In the Final Action mailed July 22, 2004, the Examiner rejected claims 1 to 3 and 5 under 35 USC 102(b) as being anticipated by Yadid-Pecht (WO 93/14595). This rejection is respectfully traversed.

The present invention as defined by method claim 1 and apparatus claim 5 is directed to the resetting of an array of active pixel sensors in a novel manner in order to avoid the problem of latch-up caused by driving substantial amounts of charge at one time onto the array substrate. The array-reset cycle in accordance with the present invention includes two steps. In the initial step, the sensors are divided into predetermined groups of one or more sensors and a pre-reset voltage is sequentially applied to each of the groups, thereby causing a series of small charges to be driven onto the array substrate rather than a large charge. Once all of the sensors have been pre-reset in this manner, the reset cycle is completed by applying a predetermined reset voltage to all of the sensors substantially simultaneously thereby assuring that all of the pixels are reset to substantially the same level. However, once again, this latter step only causes a small charge to be driven onto the array substrate since the pixels have already been pre-reset to a by the pre-reset voltage.

Yadid-Pecht is directed towards increasing the dynamic range of an image sensor. The array sensor element can be reset in one of two ways; first it can be reset in the normal manner by a regular reset pulse (RST) that occurs during the reset cycle. Second, the array sensor can

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be reset during the image capture cycle through a conditional reset pulse (CRST). The CRST is triggered when the pixel element has reached saturation, in this manner the Yadid-Pecht invention is capable of increasing the dynamic range of the image sensor by resetting pixels that have become saturated through over-exposure. As such there are a number of differences between Yadid-Pecht and the present invention:

1) Yadid-Pecht teaches a monitoring of each individual pixel and the subsequent issuance of a conditional reset signal only for the pixels where the oversaturation condition has been met (Page 7, lines 2-35). This is not taught for predetermined groups of pixels, each pixel that is reset before the end of the reset cycle in Yadid-Pecht has met a condition that is measured at the pixel level, it is dependent on the conditions each time an image capture cycle is performed. In the present invention, these conditions are irrelevant, the pixels are formed into predetermined groups and the pixels in each of the predetermined groups are pre-reset during the cycle.

2) Yadid-Pecht makes no mention of the latch-up problem.

In the Advisory Action mailed November 15, 2004, first paragraph, the Examiner points out that Yadid-Pecht Figure 5 illustrates an entire reset cycle T. However, it is to be noted that the reset enable pulses RSTE, which occur during the reset cycle T, are used to reset only pixels that have oversaturated and not all pixels.

In the Advisory Action, second paragraph, the Examiner points out that applying a pre-reset voltage has not been claimed. Claim 1 has been amended to specify applying a pre-set voltage similar to the limitation in claim 5. Claims 1 and 5 have been further amended to specify that the sensors are formed into predetermined groups of sensors and that each of the predetermined groups of sensors is pre-reset. In Yadid-Pecht, the pixels to be reset before the end of the reset cycle are not predetermined, but are conditional on their oversaturation, and

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further only the saturated pixels are reset before the end of the reset cycle and not all of the pixels.

Reconsideration of the application in its amended form is respectfully requested.

In view of the above amendments and remarks, and having dealt with all of the matters raised by the Examiner. Early and favorable action are respectfully requested.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account Number 08-1391.

Respectfully submitted,

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**CERTIFICATE OF MAILING**

I certify that this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" on January 7, 2005 at Tucson, Arizona.

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